## I. Least-Squares Line (p.554):

the line which "best fits" the points in a scatter diagram is given by the equation...

$$
\hat{y}=a+b x
$$

where, $\quad \mathrm{a}=\overline{\boldsymbol{y}}-\mathrm{b} \overline{\boldsymbol{x}}$
and $\quad \mathrm{b}=\frac{\mathrm{n} \cdot \sum_{\mathrm{i}=1}^{\mathrm{n}} \boldsymbol{x}_{\mathrm{i}} \cdot \boldsymbol{y}_{\mathrm{i}}-\left(\sum_{\mathrm{i}=1}^{\mathrm{n}} \boldsymbol{x}_{\mathrm{i}}\right)\left(\sum_{\mathrm{i}=1}^{\mathrm{n}} \boldsymbol{y}_{\mathrm{i}}\right)}{\mathrm{n} \cdot \sum_{\mathrm{i}=1}^{\mathrm{n}} \boldsymbol{x}_{\mathrm{i}}{ }^{2}-\left(\sum_{\mathrm{i}=1}^{\mathrm{n}} \boldsymbol{x}_{\mathrm{i}}\right)^{2}}$


## II. Examples (pp.566-567): \#8acdf,10acdf

HW: pp.564-567 / \#1,3,7,9,11,13

Final Exam: Tuesday, December $17^{\text {th }}$ 2:00 p.m. - 4:00 p.m.

